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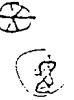
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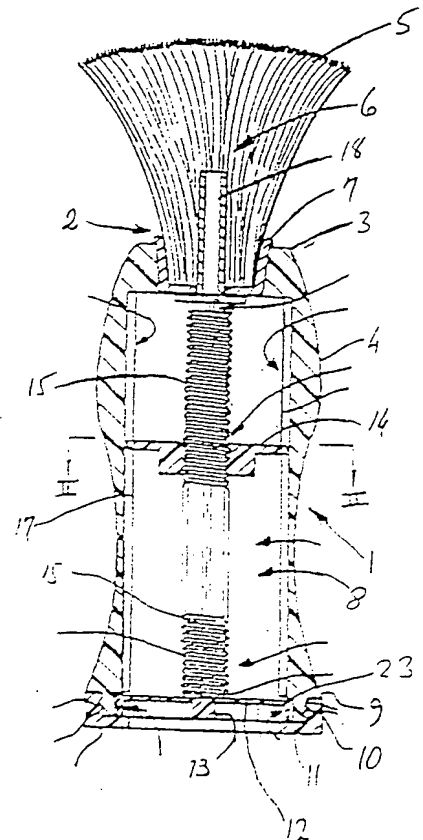
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/IT96/00169</p> <p>(22) International Filing Date: 2 September 1996 (02.09.96)</p> <p>(30) Priority Data: 95/1792 2 September 1995 (02.09.95) ZA</p> <p>(71)(72) Applicant and Inventor: VASAPOLLI, Santo [IT/ZA]; 28 Denise Road, Buccleuch, Sandton (ZA).</p> <p>(74) Agents: BAZZICHELLI, Alfredo et al.; Società Italiana Brevetti S.p.A., Piazza di Pietra, 39, I-00186 Roma (IT).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>	

(54) Title: A SHAVING BRUSH

(57) Abstract

A shaving brush (1) is provided in which a receptacle (8) for fluent shaving soap is provided in the handle (4) with an outlet communicating between the bristles (5) and receptacle. The outlet is formed by a tube (18), which is preferably flexible, and which extends from the base of the bristles (5) for an appreciable portion of their length to terminate in the middle region of the body of bristles. The receptacle (8) is preferably a bore having a plunger (14) thereon for squeezing shaving soap out of the outlet tube (18) as and when required.



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A SHAVING BRUSH

FIELD OF THE INVENTION

This invention relates to a shaving brush and, more particularly, a shaving brush of the type having a multitude of bristles extending in the same general direction from a handle to form a body of bristles terminating at its free end in a domed-shaped end to the brush. Such a brush is commonly used for applying shaving soap to a person's face or the like, either from soap contained in a shaving bowl or fluent soap squeezed out of a tube.

BACKGROUND TO THE INVENTION

Many attempts have been made to provide shaving apparatus including an applicator for shaving soap together with a razor as a combination article. Usually, in order to achieve this, the applicator has either a fabric, foam, or brush having short bristles in order simply to spread a shaving cream which does not generate a foam and is not necessarily as pleasing to use for shaving purposes as is a genuine wet foam or lather. As far as Applicant is aware, such shaving assemblies have not been commercially successful.

On the other hand, for persons who do not find it desirable to use an electric razor, a so-called "wet shave" is considered to be highly desirable.

However, the disadvantage of such a wet shave, is the fact that shaving soap in a bowl, or fluent shaving soap in a tube, must be carried separately from a brush in order to apply it, as well as a razor.

OBJECT OF THE INVENTION

It is the object of this invention to provide a shaving brush which will enhance the convenience of wet shaving, particularly when travelling.

SUMMARY OF THE INVENTION

In accordance with this invention there is provided a shaving brush comprising a head having a multitude of bristles extending in the same general direction from a base to form a body of bristles, a handle on which the base is supported, a variable volume receptacle associated with the handle, and an outlet from the variable volume receptacle, the shaving brush being characterised in that the outlet is in the form of a tube extending into the body of bristles to terminate in an open end within such body.

Further features of the invention provide for the outlet tube to extend through the base in a roughly axial direction; for the outlet tube to be flexible so as to flex with the bristles in use; for the receptacle to be constituted by a cylindrical bore in the handle and wherein the volume of the receptacle is variable by virtue of a plunger movable along the length of the receptacle.

Still further features of the invention provide for the plunger to be manually movable along the length of the receptacle or, alternatively, for the plunger to be in co-operating relationship with a rotatable, axially extending operating member wherein rotation of the operating member causes axial movement of the plunger along the receptacle to vary its volume; and for the head of the shaving brush to be removable from the handle and to define a closure at one end of the cylindrical receptacle.

In order that the above and other features of the invention may be more fully understood, two different embodiments of the invention will now be described with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:-

FIG.1 is a sectional elevation of one embodiment of the invention;

FIG.2 is a cross-section taken along line II to II in Figure 1;

FIG.3 is an end view from the end opposite the bristles;

FIG.4 is an elevation of a charging or refill container; and,

FIG.5 is a sectional elevation of a second embodiment of the invention.

DETAILED DESCRIPTION WITH REFERENCE TO THE DRAWINGS

Referring firstly to the embodiment of the invention illustrated in Figures 1 to 3, a shaving brush, generally indicated by numeral (1), has a head (2) fixed to one end (3) of a handle (4).

The head (2) comprises a multitude of bristles (5) forming a body (6) of bristles carried by a base (7) fixed to the handle.

The handle has a circular cross-sectioned bore formed co-axially therewith and defining a receptacle (8) open at the end (9) of the handle opposite the bristles. The open end has an externally screw threaded spigot (10) with which a retainer ring (11) co-operates releasably in order to maintain a relatively rotatable closure (12) in its operative position to close the receptacle for use. The closure (12) has a diametrically extending finger grip (13) whereby it may be rotated.

Within the receptacle is a plunger (14) co-operating with a screw threaded axially extending operating rod (15) which is rotatable in unison with the closure (12). The plunger (14) has, as shown most clearly in Figure 2, a plurality of outwardly directed projections (16) extending from its periphery and which co-operate with complimentary grooves (17) in the surface of the bore in order to prevent rotation of the plunger relative to the bore. In consequence, rotation of the closure (12) by means of the finger grip (13) causes longitudinal movement of the plunger in one direction or another.

The end of the receptacle at the bristle end of the brush has an outlet in the form of a tube (18) extending axially from the interior of the receptacle to a position roughly midway up the length of the bristles so as to terminate within the body of

the bristles. This tube is preferably flexible so that as the brush is used it can flex to and fro, at least to some extent, with the bristles.

For use, the receptacle is charged with a fluent shaving soap and to facilitate this a charging or refill container (19) (see Figure 4) is employed. The container (19) has a removable cap (20) at one end and a plunger (21) forming a closure at the opposite end and which can be moved along the length of the container simply by pushing it inwardly so as to expel the contents thereof.

The diameter of the container is complimentary to that of the receptacle so that its end (22) from which the cap has been removed fits snugly in a shoulder (23) formed in the open end of the bore for locating the closure (12) such that the bore of the container and bore of the receptacle are held in alignment.

In order to charge the brush with shaving soap, the retaining ring (11) is removed, as well as the closure (12) and associated operating rod (15) and plunger (14). The refill container is then located in the shoulder (23) and the plunger (21) pushed fully along the length of the container to force the fluent shaving soap into the receptacle. The plunger, operating rod, closure and retaining ring (11) are then all replaced and the shaving brush is ready for use.

In use, the closure (12) is rotated by way of the finger grip (13) to expel a required amount of shaving soap through the outlet tube (18) and into the body of bristles which, when wetted suitably, can then be used to apply a foam or lather to the face of a user.

It will be understood that use of a shaving brush as described above can be extremely simple and effective and totally obviates the necessity of having a separate bowl or tube of shaving soap, whilst retaining all of the advantages and pleasures of using a shaving brush for applying a lather.

The embodiment of the invention described above may be varied in many ways. In particular, as illustrated in Figure 5, the plunger (24) may be permanently retained within the handle at the end (25) remote from the body (26) of bristles by means of an inwardly directed shoulder (27). In this case the head (28) has a

screw threaded connection (29) to the handle (30) so that the entire head can be removed to provide an access aperture to the receptacle (31) within the handle. In this case, the outlet tube (32) forms a part of the removable head unit (28).

5 In order to fill the shaving brush of this embodiment of the invention, the head unit is simply removed and the receptacle (31) can be filled in any manner such as that described above.

In use, shaving soap is, in this case, squeezed out simply by manually pushing on the plunger (24) from the end of the brush remote from the bristles to expel the required amount of shaving soap.

10 Numerous other variations may be made to the embodiment of the invention without departing from the scope thereof. In particular, it is within the scope of the invention that the handle portion which contains the shaving soap be made as a disposable item so that a refill purchased as and when required can simply be associated with a head, for example of the type described with reference to
15 Figure 5, to form the completed shaving brush. This will obviate the possibly messy operation of filling the receptacle formed in the handle as described above.

CLAIMS

1. A shaving brush comprising a head having a multitude of bristles extending in the same general direction from a base to form a body of bristles, a handle on which the base is supported, a variable volume receptacle associated with the handle, and an outlet from the variable volume
5 receptacle, the shaving brush being characterised in that the outlet is in the form of a tube extending into the body of bristles to terminate in an open end within such body.
2. A shaving brush as claimed in claim 1 in which the outlet tube extends through the base in a roughly axial direction.
- 10 3. A shaving brush as claimed in either of claims 1 or 2 in which the outlet tube is flexible so as to flex with the bristles when in use.
4. A shaving brush as claimed in any one of the preceding claims in which the receptacle is constituted by a cylindrical bore in the handle, the volume of the receptacle being variable by virtue of a plunger movable along the
15 length of the receptacle.
5. A shaving brush as claimed in claim 4 in which the plunger is manually movable along the length of the receptacle.
6. A shaving brush as claimed in claim 4 in which the plunger is in co-operating relationship with a rotatable, axially extending operating
20 member such that rotation of the operating member moves the plunger axially along the receptacle.
7. A shaving brush as claimed in any one of claims 4, 5 or 6 in which the head of the shaving brush is removable and defines a closure at one end of the cylindrical receptacle.
- 25 8. A shaving brush as claimed in any one of the preceding claims in which the bristles of the brush are of substantially conventional configuration and length and the outlet tube extends about one half of their length towards their face ends.

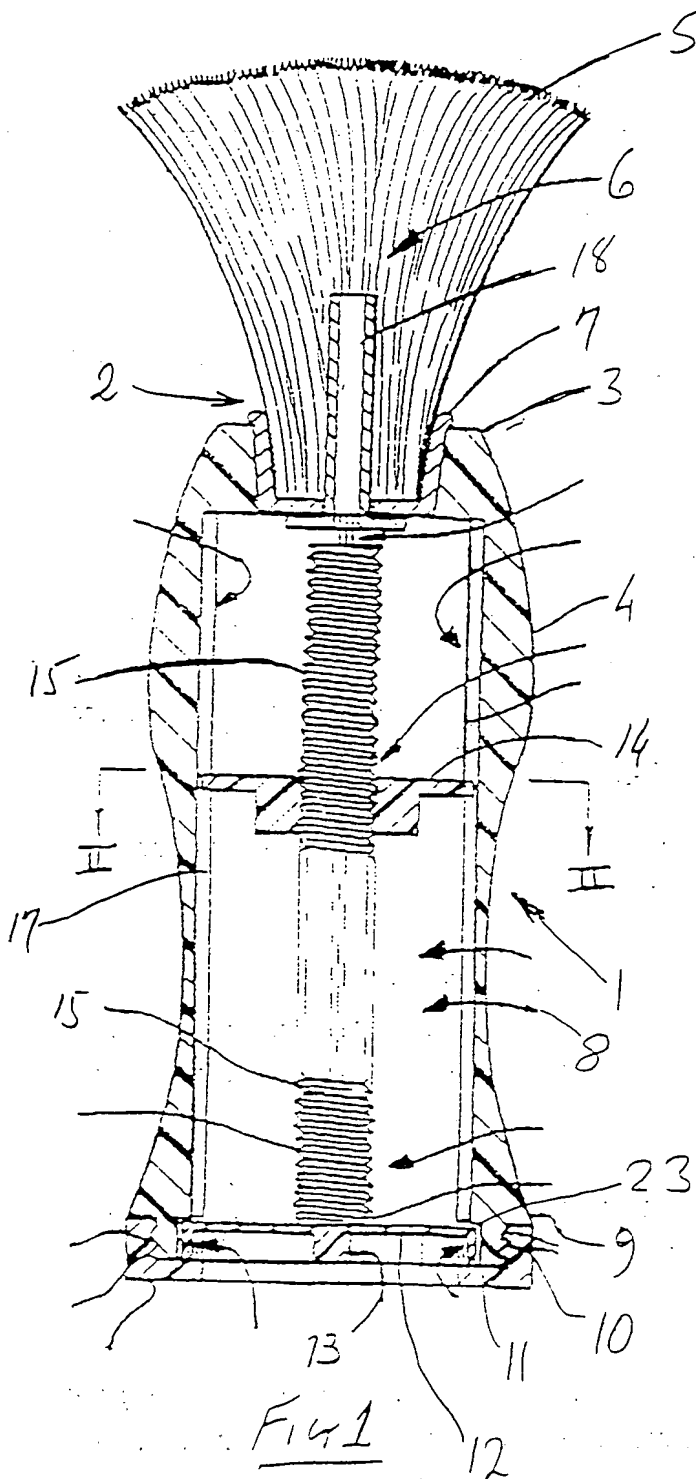


Fig 1

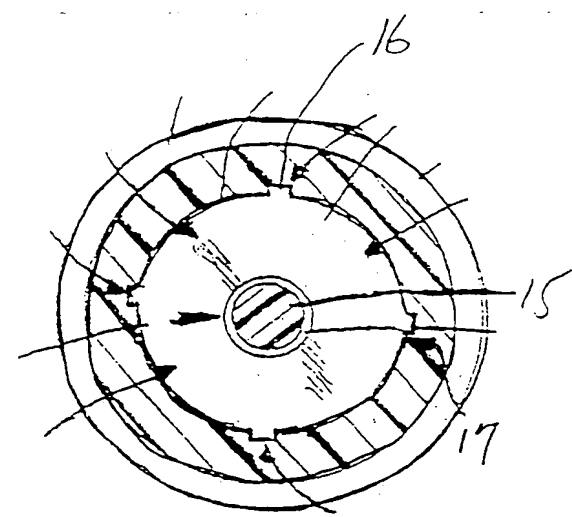


Fig 2

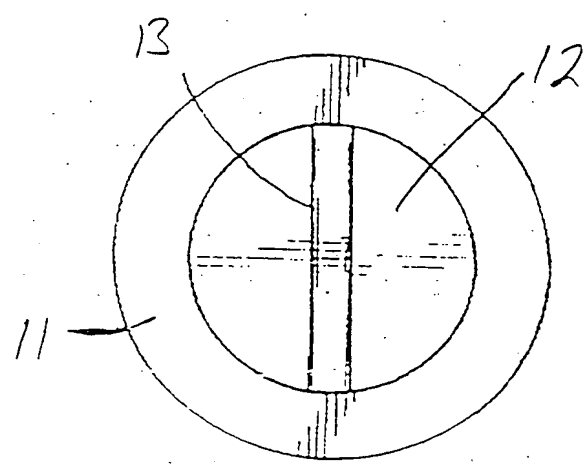
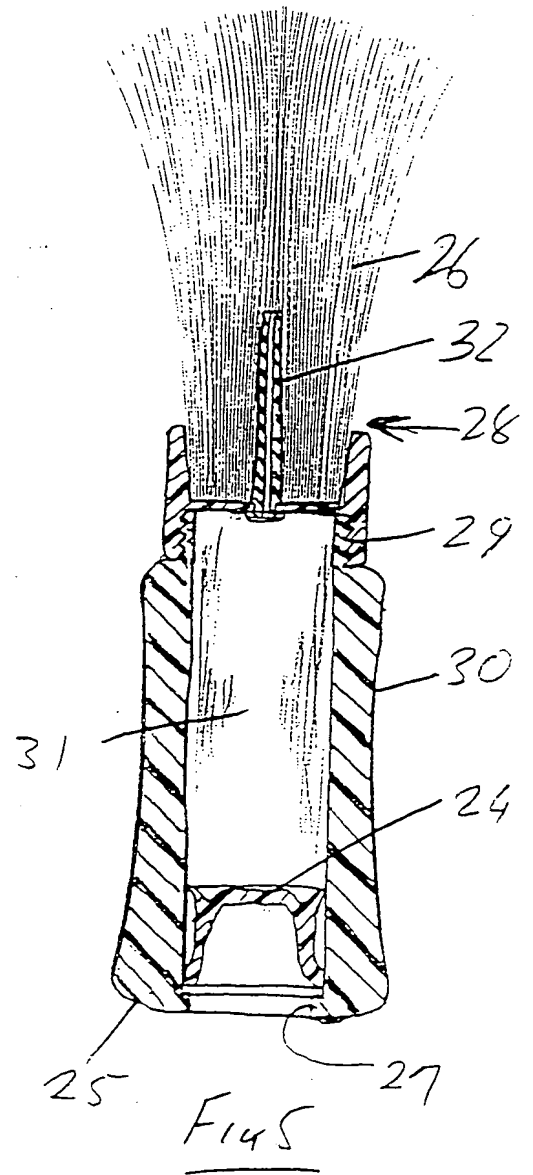
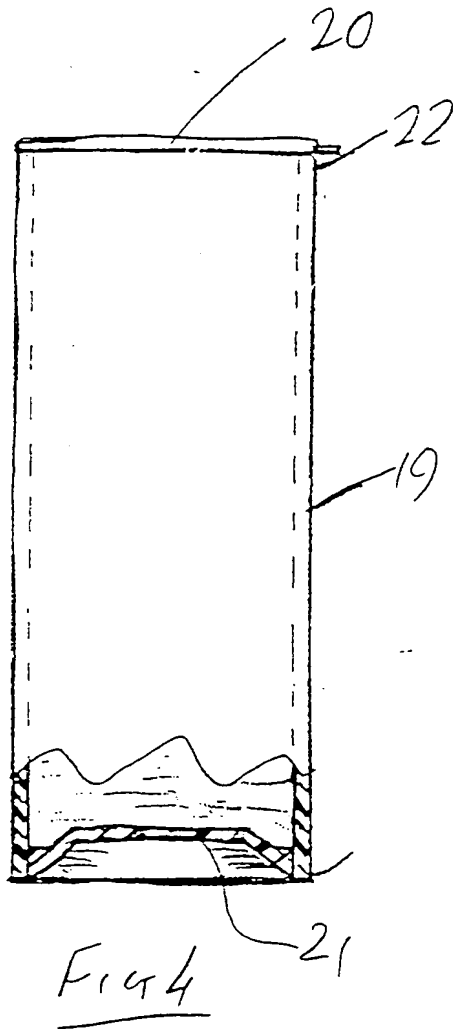


Fig 3



INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 96/00169

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A45D27/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 A45D A46B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR,A,2 588 460 (CHEN TENG-MO) 17 April 1987	1-3,7,8
Y	see the whole document	4-6
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